

# **MULTI-CHANNEL AUDIO DISTRIBUTION FOR AIRCRAFT PASSENGER ENTERTAINMENT AND INFORMATION SYSTEMS**

## ABSTRACT OF THE DISCLOSURE

A method of distributing audio channels to passengers of an aircraft includes digitally encoding a multiplicity of audio channels into a corresponding multiplicity of digital audio channels. Different groups of the digital audio channels are combined into sub-channels having a data rate higher than a data rate of the digital audio channels. The sub-channels are combined into a composite data stream having a data rate higher than the data rate of the sub-channels. A first radio frequency (RF) carrier signal is modulated with the composite data stream to generate a modulated RF signal audio output. The modulated RF signal output containing a large number of audio channels is transmitted over a data network, such as a coaxial cable network, along with a multiplicity of video channel modulated RF carrier signals.